

PROPOSED VALIDATION UNDER THE PLENARY POWERS  
OF THE GENERIC NAME "BITHYNIA" LEACH, 1818 (CLASS  
GASTROPODA)

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The purpose of the present application is to ask the International Commission to use its Plenary Powers for the purpose of validating the generic name *Bithynia* Leach, 1818 (Sub-class Prosobranchia, Order Mesogastropoda), thus preventing the appalling confusion and disturbance which would result from the disappearance of this long-established name as a junior synonym of *Bulimus* Scopoli, 1777.

2. The generic name *Bithynia* Leach, 1818 (in Clarke Abel's *Narrative of a Journey in the Interior of China* : 362), has as its type, *Helix tentaculata* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) 1 : 774) by original designation by Leach. Apart from Leach's designation this species would also be the type by monotypy, as the only other species included in the genus, *Paludina sinensis* Leach (*op. cit.*, 155) was at that time undescribed. The name appears to be taken from Bithynia, a province of Asia Minor, though what led the author to choose this inappropriate name is not apparent ; it is regarded as of feminine gender.

3. For over a century the generic name *Bithynia* Leach (though frequently misspelt *Bythinia* or *Bithinia*) has been universally employed for this and allied species and has given its name to a subfamily. Its displacement on technical nomenclatorial grounds would be open to the gravest objections, and the substitution of some virtually unknown name in place of *Bithynia* would serve no useful purpose of any kind, causing, as it undoubtedly would, quite unnecessary confusion and instability in the nomenclature of this group.

4. It is with these considerations in mind that we must examine the status of the generic name *Bulimus* Scopoli, 1777 (*Introductio ad Historiam Naturalem* : 392). The species included in this genus by Scopoli were *Helix putris*, *H. fragilis*, *H. stagnalis* and *H. tentaculata*, all of Linnaeus, 1758. Of these species, *H. putris* is the type species of *Succinea* Draparnaud, 1801, which has been placed on the *Official List* by the Ruling given in *Opinion* 94 ; *H. stagnalis* was selected as the type species of *Lymnaea* Lamarck, 1799, by Fleming, 1818 (see Application Z.N.(S.) 451) ; *H. fragilis* is a synonym of *H. stagnalis* ; while, as has been shown above, *H. tentaculata* was designated the type species of his genus *Bithynia* by Leach, 1818.

5. The name *Bulimus*, like many other generic names first published by Scopoli in the same work, was completely ignored for over a hundred years. During the inter-war period, however, this generic name was brought to the attention of the International Commission on Zoological Nomenclature and formed the subject of the Commission's *Opinion* 116, published in 1931 (*Smithson. misc. Coll.* 73 (No. 7) : 6). In that *Opinion* the Commission ruled that the name *Bulimus* Scopoli, 1777, could not be interpreted as a typographical error for *Bulinus* Müller, 1781, a name which was applied to a different genus four years subsequent to the publication of *Bulimus* Scopoli. The Commission went on to say that, according to the premises submitted, it did not appear that a type species had ever been validly selected for Scopoli's genus. This was no doubt the case at the time when the application on which *Opinion* 116 was based was submitted to the Commission, but in the meanwhile Pilsbry & Bequaert, 1927 (*Bull. Amer. Mus. Nat. Hist.* 53 : 215) had selected *Helix tentaculata* Linnaeus, 1758, to be the type species of this genus. By this action they destroyed the availability of the well-known generic name *Bithynia* Leach, 1818, making it a junior objective synonym of the till then virtually unknown name *Bulimus* Scopoli, 1777.

6. The situation resulting from this action is deplorable from every point of view, but the evil consequences are not limited to the suppression of a well-known name. The disappearance in synonymy of the universally-used generic name *Bithynia* Leach could in the most favourable circumstances lead only to confusion and instability in the nomenclature of the group to which this widely distributed genus belongs. In the present instance, however, the harm caused would be greatly aggravated and the likelihood of confusion much enhanced by the fact that the name (*Bulimus*) by which *Bithynia* Leach would be replaced was used throughout the 19th century, not for any of the species included in Scopoli's genus of 1777, but for various totally unrelated land-snails. This came about as a consequence of the extension of the genus *Bulimus* by Bruguière, 1789 (*Encycl. méth.* Vers 1 : xvi, 286) to embrace a heterogeneous assortment of species, most of which were not included in Scopoli's genus. Subsequent authors adopted the generic name *Bulimus* from Bruguière for divers species of land snails in no way connected with any of Scopoli's original species, having little in common beyond a varying degree of superficial similarity in the general shape of the shell, and now classified in a number of separate genera. British authors throughout the 19th century used the generic name *Bulimus* for *Bulimus montanus* Draparnaud, 1801 (*Tableau des Mollusques terrestres et fluviatiles de la France* : 65) and *Helix obscura* Müller, 1774 (*Verm. Hist.* 2 : 103), = *Bulimus hordaceus* Bruguière, 1789 (*loc. cit.* : 334). *Helix obscura* Müller was selected as the type species of the genus *Bulimus* by Turton, 1831 (*Manual of the Land and Fresh-water Shells of the British Islands* : 6) but this selection was invalid, as the above species is not one of the species included in *Bulimus* by Scopoli. These two species are now placed in the genus *Ena* Turton, 1831 (*loc. cit.* 80), the type species of which is *Ena montana* (Draparnaud), selected by Herrmannsen, 1847 (*Indicis Generum Malacozoorum Primordia* 1 : 421).

7. The genus *Bithynia* Leach was made the type genus of a family BITHYNIADAE [sic.] by Gray (J.E.) in 1857 (Turton's *Manual Land & Fresh-water Shells Brit. Isles* (3rd Ed.) : xiii). In the same year Troschel (F.H.) (1857, *Das Gebise der Schnecken* : 101) made this genus the type genus of a tribe which he called BYTHINIAE. In 1926 it was treated as the type genus of a subfamily BITHYNIINAE by Kennard (A.S.) & Woodward (B.B.) (*Synonymy of the British non-Marine Mollusca* : xii). Since Gray's family name and Troschel's tribe name were published in the same year (1857) it is necessary to determine which has priority over the other. The preface to Gray's edition of Turton is dated September 1857, while no information is available as to the date in 1857 on which Troschel's book appeared. Accordingly, under the provisions inserted in the *Règles* by the Thirteenth International Congress of Zoology, Paris, 1948, for determining the dates to be assigned to zoological works (1950, *Bull. zool. Nomencl.* 4 : 223—225) Troschel's book is to be treated as having been published on 31st December 1857 (the latest date on which it can have been published). It is seen therefore that Gray was the first author to make the genus *Bithynia* Leach the type genus of a family-group taxon. Modern authors follow Kennard & Woodward, treating this taxon as of sub-family rank and placing it in the family HYDROBIIDAE.

8. Mr. Hemming, as Secretary to the Commission, informed me while the present application was in draft that a similar application had been received from Dr. Joshua L. Baily, Jr. (*San Diego, California, U.S.A.*) and that, in order to facilitate the consideration of this case, he had suggested to Dr. Baily that it would be convenient if he would convert his application into a note of support for the present application, of which he sent a copy to Dr. Baily. Dr. Baily intimated that this course was perfectly agreeable to him and in due course he furnished a note of his views on the action proposed. In this note Dr. Baily drew attention, *inter alia*, to two variant spellings of the name *Bithynia* Leach which he recommended should be placed on the *Official Index of Rejected and Invalid Generic Names in Zoology*. I agree that this action is desirable and, at Mr. Hemming's suggestion, I have incorporated proposals to this end in the present paper in order that, when the Commission comes to vote on this case, it may have a single comprehensive proposal before it. The variant spellings concerned are :—(1) *Bithinia* Gray (J.E.), 1829 *London med. Repository* : 239 ; and (2) *Bythinia* MacGillivray (W.), 1843, *Hist. Moll. Aberdeen* : 124. Both of these on examination prove to be Erroneous Subsequent Spellings and not Invalid Emendations. As such, these spellings possess no status in zoological nomenclature and should, as suggested by Dr. Baily, now be placed on the *Official Index*. Finally, similar action should be taken in relation to the Erroneous Subsequent Spelling *Bytinia* Millet de la Turtaudière (P.A.), 1870 (*Faune des Invertébrés de Maine-et-Loire* 2 : 56).

9. It would be difficult to imagine anything more confusing than would be the replacement of the well-known name *Bithynia* Leach by a name which was for so long associated with a number of species belonging to a different Sub-Class. I feel therefore that this is pre-eminently a case where the use by the

Commission of its Plenary Powers is essential. I accordingly ask the Commission :—

- (1) to use its Plenary Powers to suppress the under-mentioned generic name for the purpose of the Law of Priority but not for those of the Law of Homonymy :—*Bulimus* Scopoli, 1777 ;
- (2) to place the under-mentioned generic names on the *Official List of Generic Names in Zoology* :—
  - (a) *Bithynia* Leach, 1818 (gender : feminine) (type species, by original designation : *Helix tentaculata* Linnaeus, 1758) ;
  - (b) *Ena* Turton, 1831 (gender : feminine) (type species, by selection by Herrmannsen (1847) : *Bulimus montanus* Draparnaud, [1801]) ;
- (3) to place the under-mentioned generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—
  - (a) *Bulimus* Scopoli, 1777, as suppressed under the Plenary Powers under (1) above ;
  - (b) *Bulimus* Bruguière, 1789 (a junior homonym of *Bulimus* Scopoli, 1777) ;
  - (c) *Bithinia* Gray (J.E.), 1829 (an Erroneous Subsequent Spelling of *Bithynia* Leach, 1818) ;
  - (d) *Bythinia* MacGillivray (W.), 1843 (an Erroneous Subsequent Spelling of *Bithynia* Leach, 1818) ;
  - (e) *Bytinia* Millet de la Turtaudière (P.A.), 1870 (an Erroneous Subsequent Spelling of *Bithynia* Leach, 1818) ;
- (4) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—
  - (a) *tentaculata* Linnaeus, 1758, as published in the combination *Helix tentaculata* (specific name of type species of *Bithynia* Leach, 1818) ;
  - (b) *montanus* Draparnaud, [1801], as published in the combination *Bulimus montanus* (specific name of type species of *Ena* Turton, 1831) ;
  - (c) *obscura* Müller (O.F.), 1774, as published in the combination *Helix obscura* ;
- (5) to place the under-mentioned name on the *Official List of Family-Group Names in Zoology* :—BITHYNIIDAE (correction of BITHYNIADAE) Gray (J.E.), 1857 (type genus : *Bithynia* Leach, 1818) ;
- (6) to place the under-mentioned name on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :—BITHYNIADAE Gray (J.E.), 1857 (type genus : *Bithynia* Leach, 1818) (an Invalid Original Spelling for BITHYNIIDAE).